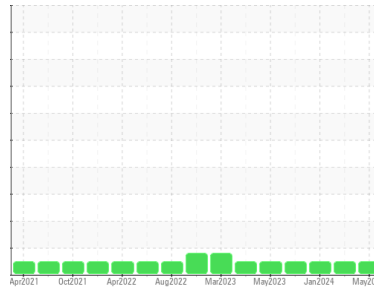




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**429063-402427**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0095982</b>	GFL0096008	GFL0095998
Sample Date	Client Info		<b>21 May 2024</b>	08 Feb 2024	19 Jan 2024
Machine Age	hrs	Client Info	<b>14799</b>	14138	14007
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>6</b>	0	7
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	<1	1
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	2	3
Copper	ppm	ASTM D5185m >85	<b>1</b>	1	3
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>28</b>	26	22
Barium	ppm	ASTM D5185m 5	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>47</b>	47	52
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 560	<b>502</b>	509	597
Calcium	ppm	ASTM D5185m 1510	<b>1464</b>	1381	1631
Phosphorus	ppm	ASTM D5185m 780	<b>887</b>	714	832
Zinc	ppm	ASTM D5185m 870	<b>1007</b>	878	1029
Sulfur	ppm	ASTM D5185m 2040	<b>2967</b>	2218	2555

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>5</b>	<1	4
Sodium	ppm	ASTM D5185m	<b>3</b>	5	7
Potassium	ppm	ASTM D5185m >20	<b>3</b>	<1	0

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.6</b>	10.0	10.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	21.4	22.0

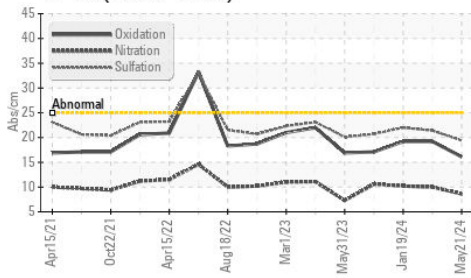
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.1</b>	19.2	19.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>6.9</b>	6.9	6.8

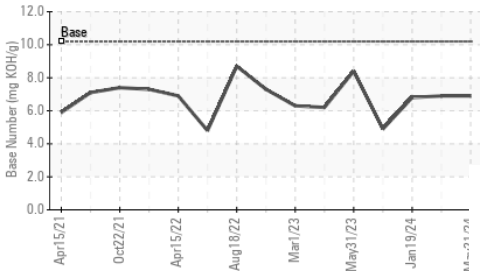


# OIL ANALYSIS REPORT

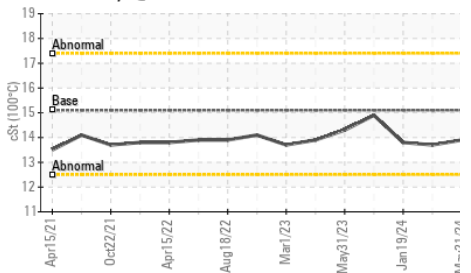
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

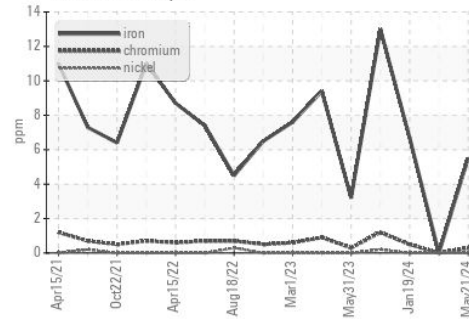


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

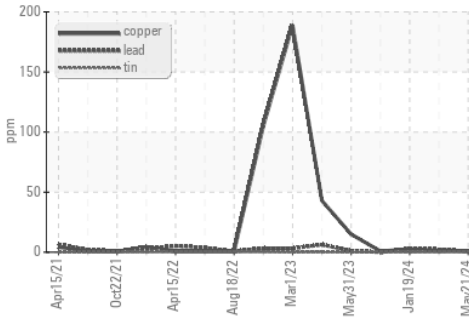
PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	13.9	13.7

## GRAPHS

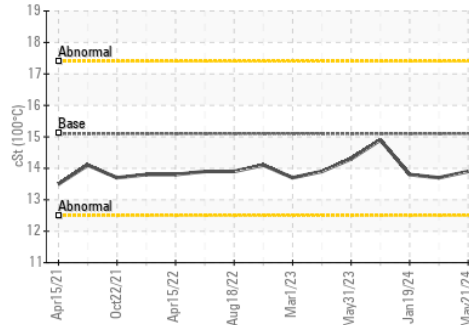
Ferrous Alloys



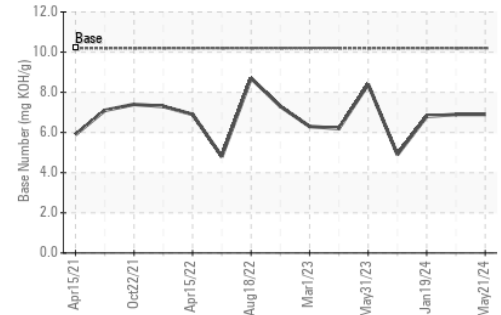
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0095982  
**Lab Number** : 06187407  
**Unique Number** : 11044159  
**Test Package** : FLEET

**Received** : 22 May 2024  
**Tested** : 31 May 2024  
**Diagnosed** : 31 May 2024 - Wes Davis

**GFL Environmental - 883 - Orange City**  
 1378 South Volusia Ave  
 Orange City, FL  
 US 32763

Contact: JEFF COOPERSMITH  
 JCOOPERSMITH@GFLENV.COM  
 T: (386)503-8468

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)